

## Experimental Lake Erie Harmful Algal Bloom Bulletin

01 August, 2016, Bulletin 07

Cyanobacteria (*Microcystis*) continues to be detectable in moderate concentrations in far western Lake Erie, extending from Maumee Bay along the Michigan coast, and extending east into the western basin to near West Sister Island. Low concentrations of cyanobacteria have appeared on the Ohio coast east of Toledo. Scum areas have not been observed. Measured toxin levels have stayed below recreational thresholds. Light northeast winds have keep the bloom in the southwest corner of the lake.

Winds are expected to be mild over the next few days, with slight mixing expected. The bloom is not expected to see much movement.

The persistent cyanobacteria bloom continues in Sandusky Bay. No blooms have been observed in the central basin or the eastern basin. Dupuy, Stumpf

The images below are "GeoPDF". To see the longitude and latitude under your cursor, select "Tools > Analyze > Geospatial Location Tool".

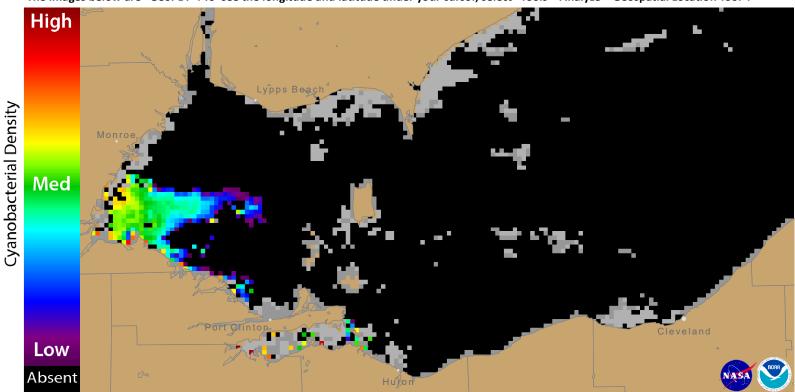


Figure 1. Cyanobacterial Index from NASA's MODIS-Terra data collected 31 July, 2016 at 12:20 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

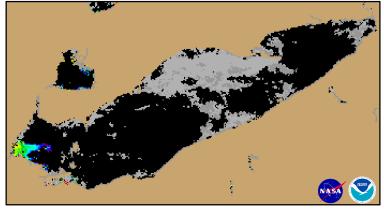
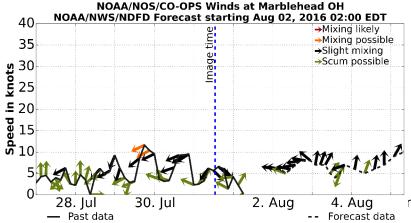


Figure 2. Cyanobacterial Index from NASA's MODIS-Terra data collected 31 July, 2016 at 12:20.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

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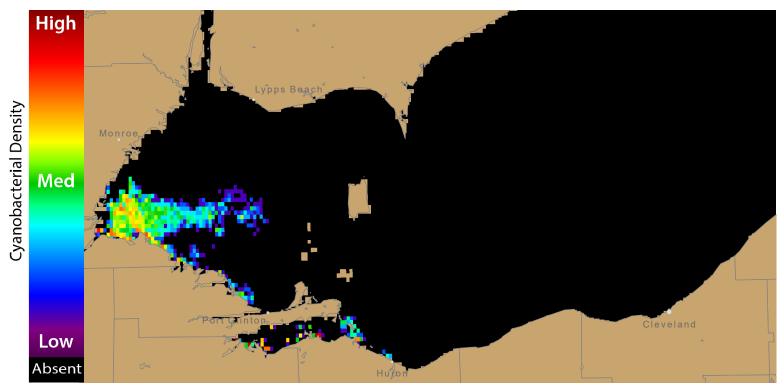


Figure 3. Nowcast position of bloom for 01 August, 2016 using GLCFS modeled currents to move the bloom from the 31 July, 2016 image.

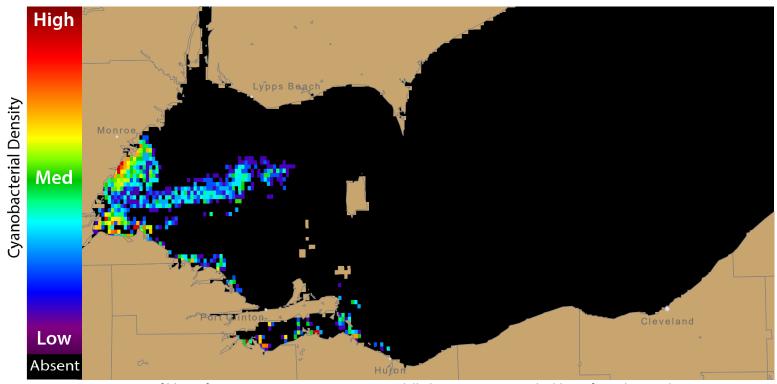
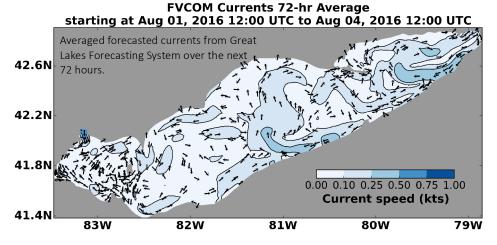


Figure 4. Forecast position of bloom for 04 August, 2016 using GLCFS modelled currents to move the bloom from the 31 July, 2016 image.



Produced with Information from NOAA's: National Centers for Coastal Ocean Science Great Lakes Environmental Research Laboratory National Weather Service, Cleveland Center for Operational Oceanographic Products and Services

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